

COLLECTION, CONSERVATION AND PRESERVATION OF MANUSCRIPTS IN KHUDA BAKHSH ORIENTAL PUBLIC LIBRARY, PATNA

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ABSTRACT -

The aim of this paper is to investigate the manuscript collection and its care in the KhudaBakhsh Oriental Public Library (KBOPL). This paper used both qualitative and quantitative method. Quantitative data has been collected by a questionnaire, which has been given to the preservation chemist, where qualitative data from the library preservation guidelines. Result shows that an extensive collection of the manuscripts are available in the two non-Indian languages, i.e., Persian and Arabic. To preserve its cultural heritage, the library is making significant contributions by doing every required job. Hence, the findings of this study are revolving only to this library. A large number of precious manuscripts are preserved in the KhudaBakhsh Oriental Public Library. Besides, KBPL is a manuscript library, also serves as a community center, which is also worthy for future research.

Keyword: Manuscript, Preservation, Conservation, KhudaBakhsh Oriental Public Library

INTRODUCTION

Forms of knowledge store have always been changing as earlier people used to record on. KhudaBakhsh Oriental Public Library (KBOPL) is a repository of glorious manuscripts of India located in Patna, Bihar, on the busy banks of the Ganga River, founded by KhudaBakhsh on October 29, 1891. With a vast collection of books in different languages, KBOPL has over twenty-one thousand manuscripts in various forms and languages. In addition to Oriental studies, KBOPL also serves as a community center that frequently organizes workshops, lectures, seminars, and academic programs to meet the needs of society. V.C Scott O'Connor, Orientalist of Edingburgh, England remarked and said about *KBOPL*- "The Patna Oriental Public Library is one of the finest collections on Moslem literature in the World"(KBPOL 2020).

Human beings have always sought to imagine their thoughts, opinions, visions, and other intellectual products and to capture them in pictures and written form (Mahapatra and Chakrabarti, 2003). Sources containing information/stories never stated; they always change its forms, physical structure, and material, particularly the rock carvings, scratching on bone and antlers, carved amulets, painted hides, runic calendars, notched sticks, bronze plaques, clog almanacs, etc(Mukherjee, 1973)., animal skin, paper, etc(Sharma, 2011). In the current time, preservation and conservation of manuscripts have become essential priorities, because they are our precious cultural heritage materials for the discovery of contemporary society, which provide a vital link to culture and knowledge (Sharma, 2011).

Background information

Manuscript

The term manuscript consists of two combined Latin words, ‘Manu Scriptus,’ i.e., ‘Manu’ means *by hand* and ‘Scriptus’ means *to write*. And etymologically manuscript means writing by hand (Balakrishna, 2011; Thompson, 1995).

According to Harrod’s Librarians’ Glossary, “*Manuscript is a document of any kind which is written by hand or text of a music or literary composition in hand written or typed script form and which in that form has not been reproduced in multiple copies.*”

What is Deterioration?

Paper materials, including documents, manuscripts, paintings, and books, are all subject to different forms of deterioration. Initially, the

paper might be durable and white, but in due course of time, its features have been altered, deteriorated, and damaged due to its physical, biological, and chemical factors (Agrawal and Barkeshli, 1997).

Deterioration Factors of Manuscripts

A long list of great libraries demolished or burned in hatred and vengeance by the conquerors. There are other causes of damage to library materials, such as petty theft, malevolent, and reckless handling by users. This is how human beings become such enemies with their own recorded ideas (Mahapatra and Chakrabarti, 2003).

Various studies broadly divided four categories of factors, as stated by Baquee and Raza (2019) are as follows:

Human Factors: theft, mismanagement, vandalism, tear off the pages, etc.

Physical factors: temperature, flood, air condition, dust, earthquake, cyclonic, fire, and humidity.

Chemical factors: affects the consistency of manuscripts such as SO₂.

Biological factors: all sorts of animals, such as bacteria, silverfish, and worms.

REVIEW OF LITERATURE

Historical evidence, especially ancient manuscripts, represents the magnificent tradition and culture of India. So, it is of utmost importance to preserve and conserve such a glorious past. India possesses the world’s largest collection of manuscripts, with over five million valuable manuscripts. Apart from various digital

challenges, barriers, and issues in digital, Gaur (2011) explored various concerns related to projects undertaken by various prominent national institutions. It is revealed that being a lack of appropriate archiving system, in the end, a huge data collected, but often there is no institution to properly handle and care. Therefore, it is suggested that National Programme on Digital Preservation and Access to Indian Cultural Heritage must be set up under the umbrella of National Digital Preservation Programme (NDPP) of India.

Buragohain et al. (2022) study focused on the maintenance of endangered manuscripts in North-Eastern states of India, specifically looking at the Endangered Archives Programme of the British Library in four of the eight states in that region. The study appears to have used both qualitative and quantitative methods to examine the collection and maintenance of these manuscripts. Overall, the study likely provides insights into the challenges and opportunities involved in preserving and protecting important cultural artifacts in this region.

This study was conducted to examine programs for the preservation and preservation of information containing materials and activities at libraries of two institutions in Nigeria. High risk for extinction may be possible due to lack of written preservation and conservation policy in the concerned libraries. In the same way, adequate resources are needed, such as ample funds, qualified and professional staff, and sufficient storage facilities. Thus, there is a need to improve the library materials conditions by regular staff orientation, on daily basis care and to train staff for preserving and conserving of library materials (Ovowoh and Iwhiwhu, 2010).

Vohra and Sharma (2011) investigated in the central library of Panjab University, Chandigarh, and their study explores the preservation and conservation issues and of the rare manuscripts collection in Panjab University Library, Chandigarh. The library has a rich manuscript collection of various languages such as Hindi, Sanskrit, Punjabi, Persian, and Urdu. The study examined the acquisition, collection, organization, preservation and conservation, digitization status and infrastructural facilities for manuscripts.

Biological, Physical, Chemical, and Human are the prominent factor are for the deterioration of various precious materials. For the preservation and conservation of such materials, there are two broad methods, i.e., Indigenous (Traditional) and Modern methods. The study revealed that more than 99% of the manuscripts are in paper form in the Persian language majorly in Maulana Azad Library, Aligarh Muslim University. It is also identified that only the research scholars and faculty members of the university are allowed to access manuscripts, and the least collection of manuscripts are kept in the exhibition room for the visitors. The primary reason for the deterioration of manuscripts is bacteria, fungus, mishandling and temperature in the library (Baquee and Raza, 2019).

National Mission for Manuscripts (NMM), the Mission seeks to unearth and preserve the vast manuscript wealth of India, was established in February 2003 by the Ministry of Tourism and Culture, Government of India. India holds an approximate five million books, possibly the largest collection in the world. The study examined the various roles and objectives of NMM for the preservation and conservation of

manuscripts. Manuscripts are the primary sources of our tradition and culture, which are available all over the maximum part of the country. So, it is our duty to conserve and preserve the manuscripts and save for the next generation with proper care (Patidar and Soni, 2016).

Salah (2018) conducted a study on the case study manuscript "Sulukalttariqatalssufia" which is kept at the Al-Azhar Library in Cairo, Egypt, where it is documented and treated. It was listed under Public No. 85314 and Special No. 2407 in the library. The dimension of the manuscript is 21cm length and 17cm width and written in red & black ink. The manuscripts were made of cotton fibers and facing various deterioration conditions such as spot and discoloration due to poor storage; ink smears as a result of cleaning of the inks by water drops or storage in an inappropriate environment, red lines for highlighting, split folds due to bad handling. Manuscripts have lost adherence due to the growing age and left colourless spots underneath.

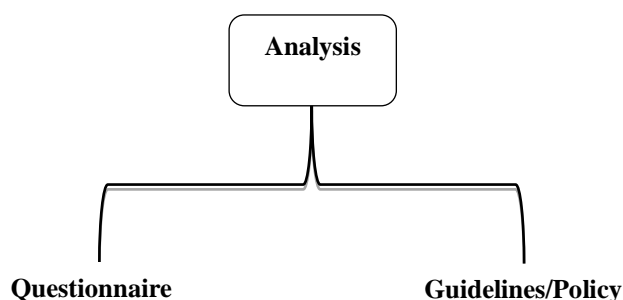
OBJECTIVES

The following specific objectives formulated to achieve the general objective.

1. To identify the various forms and languages of manuscripts available in the library.
2. To find out the different techniques for preservation and conservation of manuscripts used by the library.
3. To know the frequency in use of insecticides to preserve and conserve of manuscripts.
4. To find out the digitization status of manuscripts in the library.
5. To know the challenges faced by the section.

METHODOLOGY

For collecting data from the library, a mixed research approach was used. After conducting a literature review related to the study, a sample of the questionnaire was composed and distributed to reviewers for comment. A final questionnaire was constructed and given to the library chemist. Data has been collected through the questionnaire from the preservation chemist. Furthermore, investigators went to the different sections and observed the process of preservation and conservation of manuscripts such as mending, binding, and other works in the manuscript section. As investigator asked in detail about guidelines and process of preservation follow by the library, which is also part of the study. Hence, the analysis of the study divided as follow:



Definition of terms

Preservation: Preservation is the method of managing and maintaining cultural and historical resources. Preservation includes various procedures, policies, and processes that either deter further degradation or ensure access to the resources. (Preservation Policy, Yale University Library, Preservation Department, 2005, (Pilette, 2007).

Conservation: The conservation process can be defined as maintaining the originality or original essence of the artifact for both times, present, and in the future. Practical treatments reveal and restore in the remain objects, and added to its structure only to reinforce them to avoid any further degradation or physical instability(Newey, 2000).

Preventive & Curative :Both preventive and curative are techniques for the preservation and conservation of manuscripts from further decay and deterioration.Preventive technique measures all types of indirect actions aimed at increasing the life expectancy of undamaged or damaged materials of cultural property, comprises various methods of house-keeping, dusting, caretaking, and prevention of any possibility of physical damage, chemical, biological and other factors. Where Curative technique is direct action at increasing the life expectancy of undamaged or damaged elements by mending, de-acidification, fumigation, lamination, repairing, and other jobs that needed considering the physical conditions of materials (Sahoo, 1990).

Microfilm:Microfilm is a high-quality grained film that preserves photographs from graphics, text, and machine records using microphotography. Microfilm is a traditional photographic product: a plastic, transparent base coated with a photosensitive chemical on one side. Microfilming requires a specific type of camera to record photographs and resizing them for storage. Microfilm images are magnified and projected on microfilm-reader before use and captured by electronic means and viewed on a computer display(Records Management Publication Number Five: The Microfilming User Manual, 2018)

Microfiche: A microfiche is a microfilm sheet comprising several micro-images organized in a grid pattern. It generally includes top recognition details that are readable without magnification and include an index frame(s) describing the column and row position of each document image. Unlimited duplication is possible after master microfiche is prepared. It also provides quick retrieval of information and can be configured for either manual or automated retrieval (Derrick, 1988).

RESULTS AND DISCUSSION

Part I: Collection, Users, and Maintenance of Manuscripts

Nine tables have been drawn in this study. Table 1 states the total number of books along with manuscripts available in the library. Meanwhile, the available manuscripts are consisting of various indigenous as well as foreign languages (Table 2) in different forms (Table 3). In context to preservation and conservation techniques, preventive, curative, microfilm & microfiche, as well as digitization is being done in the library (Table 6). Insecticide also being done in the library (Table 7). Like the other libraries, KBOPL is also facing various challenges (Table 8). Apart from recording all the description of resources in the catalogue, various preservation and conservation techniques, policy for the users as well as staff also provided (Table 9).

Collection in the Library

As it can be seen from the Table 1, the total collection of KhudaBakhsh Oriental Public

Library is 2,85,000, while the total collection of manuscripts is approximate 20,999.

Table 1: Collection-wise distribution

Sl. No.	Resource Types	No. of Resources	Percentage
1	Book	2,85,000	93.14
2	Manuscript	20,999	6.86
Total		3,05,999	100.00

Language-wise distribution of manuscripts

It is evident from the above table 2 that there are several languages of manuscripts available in the library. It shows that the Persian manuscripts

8030 (38.23%) is the highest number of manuscripts available in the library, followed by Arabic Manuscripts 6086(28.98%) and Urdu 1362(6.48%).

Table 2: Language-wise manuscripts

Sl. No.	Language	Collection	Percentage
1	Arabic	6,086	28.98
2	Persian	8,030	38.24
3	Urdu	1,362	6.49
4	Turkish	26	0.12
5	Sanskrit and Hindi	92	0.44
Others		5,403	25.73
Total		20,999	100.00

Form wise collection of manuscripts

There are various forms of manuscripts like Sanchipateeya, Birch Bark, Tulipateey, Paper, cloth, Textile, Parchment, Parabaik, Vallum,

Palm Leaves etc. Table 3 shows that the 20397 manuscripts are available in Paper form, followed by Palm Leaves (600) and one manuscript in each Cloth and Parchment. And there is no manuscripts in Vallum form in the Library.

Table 3: Form-wise distribution of manuscripts

Sl. No.	Forms	Number (s)	Percentage
1	Paper	20,397	97.133
2	Cloth	1	0.005
3	Parchment	1	0.005
4	Vellum	00	000
5	Palm Leaves	600	2.857
Total		20,999	100.000

Visitors' Types

It is evident from the table 5 that various types of visitors who visit the library like Students,

Researchers, and others. As far as Faculty members are concern, KhudaBakhsh Oriental Public Library is a public library that's why faculty members are not available.

Table 4: Visitors of manuscript section

Sl. No.	Types of the visitors (Outsiders)	Yes	No
1.	Students	Yes	-
2.	Researchers	Yes	-
3.	Faculty Members (Teachers)	Yes	-
Others		Yes	-

Users' Types

Table shows the types of the users of manuscripts in the library. Among the major four user categories, researchers and faculty members are

main users. It is important to note here that researchers indicate are PhD research scholars, independent scholars and faculty members are the teachers of university, colleges, or other academic institutions

Table 5: Manuscript users

Sl. No.	User Types	Yes	No
1	Undergraduates	-	No
2	Postgraduates	-	No
3	Researchers	Yes	-
4	Faculty Members	Yes	-

Manuscripts Maintenance Techniques

It is shown in Table 6 that the KhudaBakhsh Oriental Public Library applied five types of

techniques which are being used for the preservation and conservation of manuscripts and these techniques includes- Preventive, Curative, Microfilm & Microfiche, and Digitization.

Table 6 : Techniques used preservation and conservation of manuscripts

Sl. No.	Techniques	Yes	No
1.	Preventive	Yes	-
2.	Curative	Yes	-
3.	Microfilm & Microfiche	Yes	-
4.	Other (Digitization)	Yes	-

Usage Frequency of Insecticides :- For the preservation and conservation of manuscripts collection, KBOPL occasionally uses various insecticides to its longer life (Table 7).

Table 7 : Insecticides used

Sl. No.	Frequency	Yes	No
1	Almost Always	-	No
2	To a Considerable Degree	-	No
3	Occasionally	Yes	-
4	Seldom	-	No

Challenges faced by the section :- Among three main challenges, such as financial, space and staff inadequacy, library faces the challenges of staff and space shortage (table 8).

Table 8: Challenges

Sl. No.	Challenges	Yes	No
1	Financial	-	No
2	Staff Shortage	Yes	-
3	Space Shortage	Yes	-

Table 9. Guidelines and Policy

Table 9 majorly illustrate about the guidelines and policy in the manuscript section. All the

library resources are catalogued and library has appropriate policy for its manuscripts. Moreover, library provides proper guidelines on the maintenance and use.

Table 9: Guidelines and Policy

Sl. No.	Guidelines and Policy	Yes	No
1	Preservation and Conservation Technique?	Yes	-
2	Preservation Policy?	Yes	-
3	Providing guidelines on the Security of library manuscripts?	Yes	-
4	Providing guidelines on the use of library manuscripts?	Yes	-
5	Catalogued all library resources?	Yes	-

Part II: Undertaken practices for manuscript preservation

Based on location, weather, and environment, the methods of preservation are followed. Such requirements may be accomplished using a suitable environment and several other methods, such as chemical treatment, fumigation, bleaching, restoration of faded inks, etc. Pagination is checked, and pencil marks are removed before the treatment of manuscripts and rare books.

Environmental Conditions

Gallo, an Italian chemist, suggested that the ideal humidity between 40% and 65%, and the temperature between 18⁰C and 20⁰C are suitable for the conservation of books (Ogunmodede and Ebijuwa, 2013). Whereas, the KBOPL suggested that the temperature 22⁰C to 24⁰C and humidity 45 to 55% should be maintained in good housekeeping.

Dust Removal

As the dust particles rise into the air and fall back on the shelves and other parts of the room, dusting cannot be done satisfactorily with cloth and broom. Vacuum cleaners can be used to solve these issues in libraries, which also saves a lot of time otherwise spent on cleaning and brooming (Ogunmodede and Ebijuwa, 2013). Meanwhile, the KBOPL uses dry cleaning methods to reduce dust and dirt by soft brush or vacuum cleaner of manuscripts and rare documents.

Fumigation

Fumigation is the practice of releasing harmful liquid objects produced from paper and other products in an airtight container to kill insects,

mildew, mold as well as other species that affect collections. Fumigants used in book preservation include methyl bromide, thymol, chloropicrin, ethylene dichloride, carbon tetrachloride, and hydrogen cyanide (Reitz, 2004). Fumigants are the most successful prevention measures for insect and mite pests contained in the product (Phillips et al., 2012). Perhaps, KBOPL applied various biological pests, chemical fumigation such as paradichlorobenzene or thymol fumigation.

De-acidification

De-acidification is a general term for a variety of costly preservation processes that chemically reduce the acid content of paper documents to a pH of 7.0 (neutral) or higher, which prevents further deterioration (Siwath 2010). The acid content may be extracted, and the quality of documents improved by the de-acidification process. The Library of Congress indicates that de-acidification can last 250 to 300 years for paper-based materials (Ebubechukwu et al., 2018).

In KBOPL, ink and acidity of manuscripts and rare books are checked before de-acidification. De-acidification by an alkaline method such as Calcium bicarbonate or Magnesium bicarbonate is used to reduce acidity and old patches. For water-soluble ink, a non-aqueous method or polyvinyl/acetate solution is used to remove acidity.

Repairing and Fixing

For reinforcement of folios of the manuscripts and rare books, the resizing method by Carboxymethyl Cellulose (CMC) is adopted by the library. For permanent or long life restoration

of folios, lamination should be adopted with Japanese Tissue Paper, and Gluten-free Maida paste on one side only. For normal restoration window framed out the method are done. Laminated or repaired treated sheets should be stitched. Section stitching (Zuje stitch) methods are best for manuscripts and books. It will be done by eight folios, which is flexible.

After Stitching, cutting, and training, rounding and backing, and fixing head bone are done on bound collection. Boards are fixed on both sides of the volume. Volume should be covered by leather/ by canvass or cloth as per requirement. It will be full or half or quarter binding. Leather (Calf) binding is good for manuscripts. Lettering or ornamentation is used for good looking and shining.

FINDINGS

The present study has undertaken to make an overall analysis of the collection, users, and techniques of preservation adopted in the library. After an analysis of collect data, the study has found-

- All the necessary treatment is being done in the library for the preservation and conservation of manuscripts and rare books like maintaining environmental control accordingly, de-acidification, fumigation, lamination, dust removal, Binding, Repairing and Fixing.
- The total number of manuscripts is 1/15th of the books, but the library is popular due to its manuscripts collection.
- Majorly of the manuscripts are available in six languages. The majority of the manuscripts are available in Arabic, followed

by Persian, Urdu, Turkish, Sanskrit, and Hindi language. Remaining, a quarter of the manuscripts are in other indigenous and international languages.

- The manuscripts are available in four different forms in the library. The majority of the manuscripts are available in Papers, followed by Palm leaves, and in Cloth & Parchment equally.
- It also revealed that only researchers utilize manuscripts for their research work, where the general students and other visitors visit the manuscript section.
- Modern as well as traditional techniques like preventive, curative, microfilm & microfiche and digitization have been adopted for the preservation and conservation of manuscripts.
- The insecticide is used in particular as in the case for a certain period of time and as needed to deter insect attacks
- Besides issuing guidelines to the library staff against theft, preservation, and conservation, the library provides guidelines to the visitors on the proper handling of manuscripts.
- It was also found that less than fifty percent (<50%) of manuscripts have been digitized, and digitization of the remaining manuscripts is underway.
- As far as funding is concerned, the library is supported with sufficient funds, but the problems confronting the library are personnel and space shortage.

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